

Project - Kyoto, baby

AI-assisted learning for neural networks.

Core idea:

Learning goals:

Students will be able to implement neural network concepts.

Research question:

- **How AI-assisted interactive visualisation of neural networks improve student learning performance?**
- **Would learning platform with AI feedback and instructions enhance student learning performance?**

Task Analysis:

<https://playground.tensorflow.org/> clone with specific targets.

- Experimental Group (A): Users get AI assistance for the first 10 examples (clippy style), then they have 5 test cases without AI.
- Control Group (B): Users get 10 test examples they need to optimise for, with generic rules of how different parameters affect performance, then 5 test cases

Recruitment plan:

- Master's student (Michalis's)
- Master EPFL student (Mauro's) ---> Isna need to asked first

We record (everything, but we focus on):

- Performance on the 5 test questions (complexity vs performance) and speed
- Engagement between clicks
- If Michalis approves -> performance on the NN assignment (post-intervention performance)
- Self-assessment survey: AI literacy, Intrinsic motivation

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